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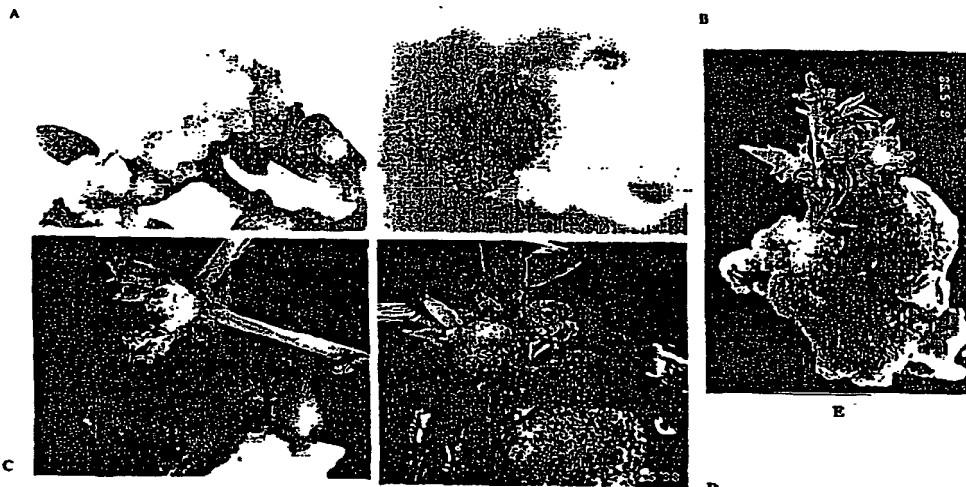
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(54) Title: REGENERATION AND GENETIC TRANSFORMATION OF ACACIA MANGIUM

Adventitious bud induction from leaf

A: Callus induction; B: Adventitious bud recovery;
C,D,E: Plumule formation and adventitious bud elongation



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(57) Abstract: The present invention is directed to a method of *Acacia mangium* regeneration through organogenesis and a method of genetic transformation of *Acacia mangium*. The method of regeneration comprises inducing callus from different parts of seedlings and vegetatively micropropagated plantlets as explants; adventitious bud induction followed by pinnate leaf and bud elongation and eventually, elongated shoots were induced to root. Based on the regeneration system, a marker gene GUS under cauliflower mosaic virus promoter was introduced to *Acacia mangium* via Agrobacterium infection. GUS staining in the regenerated plants and Southern blot hybridization prove the incorporation of the foreign gene into the host genome and expression of the foreign gene.